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L18: Entry 6 of 35

File: DWPI

Oct 17, 2000

DERWENT-ACC-NO: 2000-664307

DERWENT-WEEK: 200064

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TITLE: Preservation of body fluid samples, especially prior to analysis, comprises adding sodium benzoate and citric acid

INVENTOR: NIMMAGUDDA, R R; PUTCHA, L

PRIORITY-DATA: 1998US-0007239 (January 14, 1998),  
1995US-0587763 (December 12, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
US 6133036 A	October 17, 2000	N/A	012	G01N031/00

INT-CL (IPC): G01N 31/00

ABSTRACTED-PUB-NO: US 6133036A

BASIC-ABSTRACT:

NOVELTY - A method for preserving a liquid biological sample e.g. saliva, tears, urine, blood, serum, plasma, sweat, vaginal fluids, semen, feces, mucus, breast milk, ascites, pleural effusion, lymph, synovial fluid, bone marrow, cerebrospinal fluid and washings from body cavities comprises adding at least 0.15 w/v% sodium benzoate (I) and at least 0.025 w/v% citric acid (II) to maintain a pH of at most 4.

USE - The method is useful for preserving analytes, e.g. proteins, lipids and carbohydrates, in body fluid samples, especially saliva, prior to analysis.

ADVANTAGE - Analytes in the sample remain stable, and the sample remains free of microbial contamination, for up to 90 days at room temperature.

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L20: Entry 5 of 8

File: DWPI

May 9, 1996

DERWENT-ACC-NO: 1996-354995

DERWENT-WEEK: 199636

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TITLE: Removing photoactive agent from biological fluid -  
comprises contacting with carbon fibres, esp. for removing  
methylene blue from blood (prod.) after sterilisation

INVENTOR: BORMANN, T J; MATKOVICH, V I ; PIECHOCKI, D

PRIORITY-DATA: 1994US-0337365 (November 8, 1994)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
CA 2153010 A	May 9, 1996	N/A	043	A61K035/14
✓US 5660731 A	August 26, 1997	N/A	011	B01D015/00

INT-CL (IPC): A61K 35/14; A61L 2/08; A61L 2/18; A61M 1/36; B01D 15/00

ABSTRACTED-PUB-NO: CA 2153010A

## BASIC-ABSTRACT:

Processing a biological fluid comprises sepg. a photoactive agent (A) from the fluid by contacting the fluid with an arrangement including carbon fibres for binding (A). The method esp. comprises: (a) passing a biological fluid contg. plasma and red blood cells (RBCs) to an RBC barrier filter (opt. combined with a leukocyte depletion filter); (b) passing the fluid through the filter and collecting the obtd. RBC-free fluid in a container; (c) contacting the fluid with 1 (A), and (d) sepg. (A) from the fluid as above.

USE - The process is useful for removing (A) from fluids, esp. blood and blood components being treated for use in transfusion, after (A) has been used (in the presence of light) to inactivate and/or kill potentially pathogenic microorganisms (e.g. viruses and bacteria) in the fluids. (A) is esp. methylene blue (MB) (claimed), but more generally (A) include porphyrins, psoralens and photoactive dyes. (A) is removed before admin. of the material to a patient since it is a 'foreign' material, which might bind to and/or damage nucleic acids and possibly cause mutations, disease and/or birth defects.

ADVANTAGE - (A), esp. MB, is efficiently and completely

removed, while allowing passage of desirable components. Compared with a bed of carbon particles, the carbon fibres provide easy fluid flow, a low pressure drop, an increased surface area for contacting the fluid and a more compact device. The desired components (e.g. plasma proteins and coagulation factors) are efficiently recovered. The removal of (A) can be combined with the removal of other undesirable materials, esp. leukocytes (claimed).

ABSTRACTED-PUB-NO:

US 5660731A EQUIVALENT-ABSTRACTS:

A method for processing a biological fluid comprising:

removing red blood cells from a biological fluid to produce a plasma protein-containing biological fluid that is substantially free of red blood cells;

placing the plasma-protein containing biological fluid in contact with a photoactive agent;

activating the photoactive agent;

separating the photoactive agent from the plasma protein-containing biological fluid by passing the agent-containing fluid through a photoactive agent binding arrangement including carbon fibers; and

recovering the plasma protein-containing biological fluid.

**WEST****End of Result Set**

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L12: Entry 3 of 3

File: DWPI

Dec 8, 1994

DERWENT-ACC-NO: 1995-022309

DERWENT-WEEK: 199929

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TITLE: Inactivation of bacteria in platelet preps. for transfusions - by removing plasma from the preps., adding 8-methoxy-psoralen and activating the cpd.

INVENTOR: CORASH, L M D; LIN, L ; CORASH, L ; CIMINO, G D ; ISAACS, S T ; TESSMAN, J

PRIORITY-DATA: 1993US-0072485 (June 2, 1993), 1992US-0844790 (March 2, 1992), 1992US-0926477 (August 7, 1992), 1995US-0480013 (June 7, 1995)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
WO 9427433 A1	December 8, 1994	E	067	A01N001/02
AU 9472431 A	December 20, 1994	N/A	000	A01N001/02
✓US 5459030 A	October 17, 1995	N/A	028	A01N001/02
US 5709991 A	January 20, 1998	N/A	018	A01N001/02

INT-CL (IPC): A01N 1/02; A61K 41/00; A61M 35/00; A61M 37/00; A61N 1/30

ABSTRACTED-PUB-NO: US 5459030A

## BASIC-ABSTRACT:

Inactivating bacteria in platelet preps. for transfusions comprises: (a) providing, in any order, (i) a phosphate buffered, aq. salt soln. comprising glucose and 8-methoxypsoralen (8-MP), (ii) a device for activating the 8-MP and (iii) a platelet prepn. suspected of being contaminated with bacteria, comprising platelets and plasma; (b) removing the plasma from the prepn. and adding the soln. to the platelets so that the platelets are suspended in a mixt. having a residual plasma concn. of 8-25 vol.%, and (c) activating the 8-MP in the mixt. with the activating device, so that the 8-MP inhibits the replication of the bacteria. Also claimed is a synthetic platelet storage medium comprising an aq. soln. of 45-100 mM NaCl, 4-5 mM KCl, 10-15 mM sodium citrate, 20-27 mM NaOAc, about 2 mM glucose, 20-30 mM mannitol, about 20 mM Na<sub>3</sub>PO<sub>4</sub>, 2-3 mM MgCl<sub>2</sub> and 8-MP at a concn. between 2  $\mu$ g/ml and its max. solubility in water.

USE - The platelet preps. are used in transfusions for treating a variety of conditions and disease states.

ADVANTAGE - The method can inactivate single cell and multicellular organisms without causing damage to cells. It allows for processing of large numbers of samples.

ABSTRACTED-PUB-NO:

US 5709991A EQUIVALENT-ABSTRACTS:

Synthetic platelet storage medium comprises an aq. soln. of (a) 45-1000 mM NaCl; (b) 4-5 mM KCl; (c) 10-15 mM sodium citrate; (d) 20-27 mM sodium acetate; (e) 2 mM glucose; (f) 20-30 mM mannitol; (g) 20 mM sodium phosphate; (h) 2-3 mM MgCl<sub>2</sub>; and (i) 8-methoxypsoralen in concn. between 2 micro-g per ml. and is max. solubility in water.

Pref., medium has pH 7.2 and opt. includes 8-25 vol.% plasma.

ADVANTAGE - Medium is used in conjunction with the photodecontamination of platelets in vivo.

Inactivating bacteria in platelet preps. for transfusions comprises: (a) providing, in any order, (i) a phosphate buffered, aq. salt soln. comprising glucose and 8-methoxypsoralen (8-MP), (ii) a device for activating the 8-MP and (iii) a platelet prepn. suspected of being contaminated with bacteria, comprising platelets and plasma; (b) removing the plasma from the prepn. and adding the soln. to the platelets so that the platelets are suspended in a mixt. having a residual plasma concn. of 8-25 vol.%, and (c) activating the 8-MP in the mixt. with the activating device, so that the 8-MP inhibits the replication of the bacteria. Also claimed is a synthetic platelet storage medium comprising an aq. soln. of 45-100 mM NaCl, 4-5 mM KCl, 10-15 mM sodium citrate, 20-27 mM NaOAc, about 2 mM glucose, 20-30 mM mannitol, about 20 mM Na<sub>3</sub>PO<sub>4</sub>, 2-3 mM MgCl<sub>2</sub> and 8-MP at a concn. between 2 mu g/ml and its max. solubility in water.

USE - The platelet preps. are used in transfusions for treating a variety of conditions and disease states.

ADVANTAGE - The method can inactivate single cell and multicellular organisms without causing damage to cells. It allows for processing of large numbers of samples.

WO 9427433A

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L14: Entry 4 of 12

File: DWPI

Nov 16, 1999

DERWENT-ACC-NO: 2000-052179

DERWENT-WEEK: 200004

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TITLE: Method of disinfecting biological samples e.g. blood, blood derivatives, clotting factors, plasma, serum, platelets, packed red-blood cells, tissues, tissue cultures, cells and organs

INVENTOR: SHANBROM, E

PRIORITY-DATA: 1995US-0529650 (September 18, 1995)

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
✓ US 5985260 A	November 16, 1999	N/A	008	A61K031/74

INT-CL (IPC): A01N 1/02; A01N 59/22; A61K 31/74

ABSTRACTED-PUB-NO: US 5985260A

BASIC-ABSTRACT:

NOVELTY - A method of disinfecting biological samples comprises adding an albumin-iodine complex to a sample within one hour after formation of the complex, mixing the sample with the complex and allowing the resulting mixture to react.

USE - Used to disinfect biological samples including blood, blood derivatives, clotting factors, plasma, serum, platelets, packed red-blood cells, tissues, tissue cultures, cells and organs, such as tissues and organs before transplant (claimed). Used to ensure biological samples are free from disease-causing microbes. Suitable for use in human and veterinary applications by selecting the albumin to match the recipient species.

ADVANTAGE - Limits destructive action of iodine upon material to be disinfected. Provides effective carrier of iodine that can be added to blood or other biologicals without danger of inducing unwanted immunological reactions in human recipients. Can be used on biologicals intended for cell culture and other non-human applications. Non-toxic, non-immunogenic and disinfects with minimal damage to cells and tissues. Complex is active (capable of significant disinfectant action) only for relatively short period of time, minutes to days, after formation.

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L14: Entry 6 of 12

File: DWPI

May 2, 2001

DERWENT-ACC-NO: 1999-119864

DERWENT-WEEK: 200129

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TITLE: Removing methylene blue platelet preservative from blood  
- comprises passing blood through porous polyvinyl alcohol  
acetal copolymer to bind methylene blue

INVENTOR: SHANBROM, E

PRIORITY-DATA: 1996US-0718642 (September 17, 1996),  
1998WO-US14863 (July 16, 1998), 1998BR-0016174 (July 16, 1998)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
BR 9816174 A	May 2, 2001	N/A	000	A61L002/18
✓US 5858641 A	January 12, 1999	N/A	007	A01N001/02
WO 200003751 A1	January 27, 2000	E	000	A61L002/18

INT-CL (IPC): A01N 1/02; A61L 2/02; A61L 2/18

ABSTRACTED-PUB-NO: US 5858641A

## BASIC-ABSTRACT:

Removing methylene blue from blood or its fraction, comprises passing the blood through a thickness of porous of polyvinyl alcohol-acetal (PVAA) copolymer to bind the methylene blue.

USE - The process is used to remove methylene blue from aqueous compositions to which methylene blue has been previously added in order to extend the shelf life of the platelets. Methylene blue is added to the platelet concentrate and can be removed when the platelets are needed. Preferably triglycerides can also be removed from an aqueous solution. Methylene blue is added to the triglyceride-containing aqueous solution and the triglycerides are removed together with methylene blue using the porous polyvinyl. The process can also be used to remove disinfectant dye from blood such as methylene blue, acridine orange, gentian violet, brilliant green, acridine yellow, quinacrine, trypan blue and trypan red (all claimed).

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L14: Entry 7 of 12

File: DWPI

Jun 10, 1998

DERWENT-ACC-NO: 1998-348115

DERWENT-WEEK: 199843

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TITLE: Iodine capture system using formaldehyde-polyvinyl alcohol polymer - or porous polyvinyl acetate-alcohol-acetal useful when treating biological fluids or protein solutions (e.g. blood, platelets) with iodine

INVENTOR: SHANBROM, E

PRIORITY-DATA: 1996WO-US18604 (November 20, 1996)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
AU 9710563 A	June 10, 1998	N/A	000	A61L002/18
WO 9822151 A1	May 28, 1998	E	024	A61L002/18

INT-CL (IPC): A61L 2/18

ABSTRACTED-PUB-NO: WO 9822151A

## BASIC-ABSTRACT:

Iodine capture system (S) comprises a liquid conduit which has placed in it (a) a biocompatible polymer (Ia) formed by the inorganic acid-catalyzed reaction of formaldehyde and polyvinyl alcohol; or (b) a polyvinyl acetate-alcohol-acetal porous body (Ib).

Also claimed are (1) a method for treating biological fluids or protein-containing solutions by (a) adding iodine to the fluid to be treated; and (b) passing the liquid through iodine-free (Ia) or (Ib); (2) a method of removing iodine from biological fluids or protein-containing solutions by passing the fluids through (Ib); and (3) a method of treating a fluid which contains platelets by passing it through (Ib) or a porous body of (Ia).

USE - The methods use the well-known disinfectant properties of iodine for treatment of liquids such as blood and blood products, cells, and nutrients for biological media; and air e.g. for airline passengers, as a carrier for medication or for immunodeficient laboratory animals.

ADVANTAGE - The polymer has a great capacity for trapping iodine without re-releasing it. (S) can be inserted into a processing system for, e.g. blood banks which give products



processing system for, e.g. blood banks which give products without attendant damage to cells and platelets, and free from viruses and other pathogens. This is of particular relevance considering the problems encountered with HIV and hepatitis, other viruses in blood products in recent years.

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L18: Entry 19 of 35

File: DWPI

Jul 28, 1993

DERWENT-ACC-NO: 1993-236304

DERWENT-WEEK: 199330

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TITLE: Treatment of samples e.g. tissue, blood, etc. - to release intracellular components of microorganisms, by adding disinfectant to sample then lysing microorganisms

INVENTOR: DEY, M S ; DOWN, J A ; KEATING, W E ; SIDDIQI, S U

PRIORITY-DATA: 1992US-0819355 (January 9, 1992)

## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
✓ EP 552571 A1	July 28, 1993	E	023	C12N001/06
AU 9331113 A	July 15, 1993	N/A	000	C12N001/06
CA 2086729 A	July 10, 1993	N/A	000	C12N001/06
JP 05317033 A	December 3, 1993	N/A	017	C12N001/06

INT-CL (IPC): A61L 2/16; C12N 1/06; C12N 9/50; C12N 15/10; C12Q 1/68; G01N 1/28

ABSTRACTED-PUB-NO: EP 552571A

## BASIC-ABSTRACT:

Process comprises (a) adding a disinfectant to a sample and (b) lysing microorganisms in (a).

The sample may be liquified prior to step (a) using a soln. comprising 0.5 N NaOH and 0.1M sodium citrate contg. 1% (w/v) N-acetyl-L-c ysteine. The lysing may be effected using a reagent contg. proteinase K, achromopeptidase and EDTA.

USE/ADVANTAGE - Process can be applied to samples such as sputum, faeces, tissue, blood or serum. Using the process, microorganisms are rapidly lysed to provide intracellular components such as DNA which can then be detected or amplified.